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\* THIS MONTH:  
\*  
\* - Bill On MSCRIPT  
\*  
\* - Sunshine Computerfest  
\*  
\* - Rudy's Corner  
\*  
\* - Presidents Message  
\*  
\* - And Other Great Things  
\*  
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\* NEXT MEETING DATE: 4/13/88  
\*-----  
\*

\* Send all contributions by the  
\* first day of the month to:  
\*  
\*

\* Bill Heberlein  
\* Editor  
\* SMUG BYTES  
\* 5052 N. 91st Street.  
\* Milwaukee, WI 53225  
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& WORKING  
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Meeting date 3rd Sat. of the  
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No set date. Call for info.

Spectrum - R. Hilsmann  
- 251 5291  
Meeting date 3rd Wed. of the  
month.

RP/M - R. Cultice  
- 542 3591  
Meeting date 4th Wed. of the  
month.

QL - R. Hilsmann  
- 251 5291  
Meeting date see Spectrum group

(NOTE NEITHER ANY AUTHOR OR SMUG BYTES TAKE ANY RESPONSIBILITY FOR ANY HARDWARE MODIFICATIONS TO YOUR EQUIPMENT.)

TIPS FOR THE T/S2068  
by DENNIS NICKELS

I don't know about you, but I finely got tired of the whimsy little short cable on the T/S 2040 & Alphacom 32 printer. I replaced the original with a two foot piece of cable for a Centronics Parallel printer. It was shielded and had more wires in it than needed. in it than needed. (You only need seven wires.) I just soldered the unused ones together with the shielding for the heck of it. (Hoped it would provide more shielding.) I used the wires in the replacement cable whose colors were most like the original ones just to avoid confusion. The original cable was cut off on both ends, leaving about an inch & a half sticking out of the circuit boards so I wouldn't risk wrecking the traces on the circuit boards with my super duty dread-naught vaporizing soldering iron.

I used lots of electrician's tape to keep shorts to a minimum & plastic cable ties for strain reliefs inside the cases. Since the new cable was larger in diameter, the printer case & thru plug case and to be gouged out so everything could be stuffed back together again.

The modification was done on the Alphacom 32 printer and was successful, much to my delight & amazement since I don't really know for sure what I'm doing most of the time.

I'm using the printer along with an Olinger disk drive interface, two Olinger mother boards with a centronics printer & joystick interface all hanging out in the open, along with the disk drive power supply & disk drives themselves which I never got back into their case.

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## **"80" NOTES**

BY R.A.HILSMANN

Ever wonder what some of the intended functions for some of the keywords on your computer were? Like the MOVE, ERASE, CAT and FORMAT keys. Well when Timex came out with the 2068, there were some peripherals in the planning stage. Some were available before Timex bailed out of the computer market, like the 2020 Cassette Recorder or the 2090 so called Command Stick. Almost ready, but finally marketed by Westridge, was the 2050 Telecommunications Modem, advertised as being compatible with all Timex Sinclair computers, it was also suppose to have modem to modem communication capability!

Finally, for June 1984 there were the 2060 System Expansion Unit, the 2065 Microdrive Storage Unit and the 2080 Printer, to be released.

Lets talk about the 2060 System Expansion Unit, since most of us are familiar with what a Centronics Type printer and also a Micro Drive Unit will do.

**TS 2060 SYSTEM EXPANSION UNIT**  
(great, what ever happened to the proto type model, or was it never implemented? Someone out there either has it or it wound up in a dumpster. It may be that Timex was waiting for delivery by Sinclair, which is what I believe, since it took Sinclair quit a while to get the INTERFACE I on the market.) Well lets not dwell on something that could have been, lets talk about what the 2060 Expansion Unit was planed to be.

It was to allow expansion of the TS 2068 computer system (expansion of memory to 16 megabytes, by means of bank switching), have a standard Centronics parallel interface, RS 232 interface with selectable baud rate, 80 or 64 column, high resolution, monochrome composite video output, standard RGB video output, Interface and controller for up to 8 TS 2065 Microdrives,

Local area network capability, CP/M mode with optional 32K additional Ram, and finally it was to have an Auxiliary level audio output on a 1/4" phono jack.

Very impressive, but!! The closest thing I came across that would implement some of those features is the Interface I.

Now let me talk about some of the keys and what each would have done if this interface would have reached the market. There are a few features I can not cover, since not even Timex had an idea on how to take care of them at the time. There were some software modules covering the 80, 64 and 40 column display in the works and almost completed when Timex quit, but the rest, like the CP/M mode, was only talked about. All this was to go into what was called The Extended Basic Module.

Here are the planed extensions and additions to the basic already in the 2068 rom.

### **STREAMS**

Streams, specified as # n where n is a number in the range of 0-15. Streams 0, 1, 2 and 3 are already used by the present basic. The # Chr\$ is part of the keyword for the OPEN# and CLOSE# statements.

### **CHANNELS**

Seven types of channels were to be covered in the extended basic; the (K)Keyboard, (S)Screen, (P)Printer, (T)Text RS232 (ASCII), (B)Binary RS232, (N)Network and (M)Microdrive

Each channel specified by its letter. The Network and Microdrive channel would have required additional information to specify the channel completely.

A network channel would need a station number in addition to the "n", specified as "n",x where x is the station number in the range of 0-64.

A microdrive channel would have

required a drive number and a file name, a microdrive channel would be specified as "m",y,"name", y would be the drive number in the range of 1-8.

#### STATEMENTS:

CAT y - would have given a list of all files in drive y including the cartridge name followed by the bytes remaining on the cartridge in (k) kilobytes.

CAT# z,y - would have send the catalog of the cartridge in drive y to stream z.

CLOSE# stream - will close any channel from the specified stream. Any buffered data is then send to the linked stream.

ERASE "m",y,"name" - would erase the file with the specified name from drive y.

FORMAT "m",y,"name" - would format a cartridge for use. The name would be given to the cartridge and would appear in catalogues.

FORMAT "n",x - would have set the network station number to x.

FORMAT "t",x or "b",x - would have set the baud rate for the RS232 interface to x, x would have been any of 50, 110, 300, 600, 1200, 2400, 4800, 9600, 19200.

INKEY\$# stream - would have returned a single chr\$ as a string from stream "t" or "n".

INPUT# stream,variable - would have input the variable from a specified opened stream.

LOAD\* channel - would have loaded a program, data or code from the specified channel "b", "n" or "m".

MERGE\* channel - would have loaded as the usual Merge function.

MOVE source TO destination - would have moved data from the source to the destination. The source or destination could have been either streams or channels. The command would terminate when an end of file marker would be encountered when a microdrive or network channel or else a stream was linked to one. Channels would have to be opened and closed.

OPEN# stream,channel - will link the specified channel to the specified stream, this can be done presently with channels "p", "k" or "s".

PRINT# stream - outputs the print sequence to the specified stream. The stream must previously have been opened to a channel.

SAVE\* channel - would have saved a program, data or code to the specified channel. Only channels "b", "n", or "m" could have been used.

VERIFY\* channel - would have been the same as load\*, except that data would be compared not loaded.

\*\*\*\*\*

Big deal you may say, but what does information like that do for me now! Well some of the commands will work to some extend on your computer, and this may be of help to you. On the next page I will give you the system variables set up by the spectrum computer when implementing the Interface I, how TIMEX would have accomplished this is a question we can only speculate on.

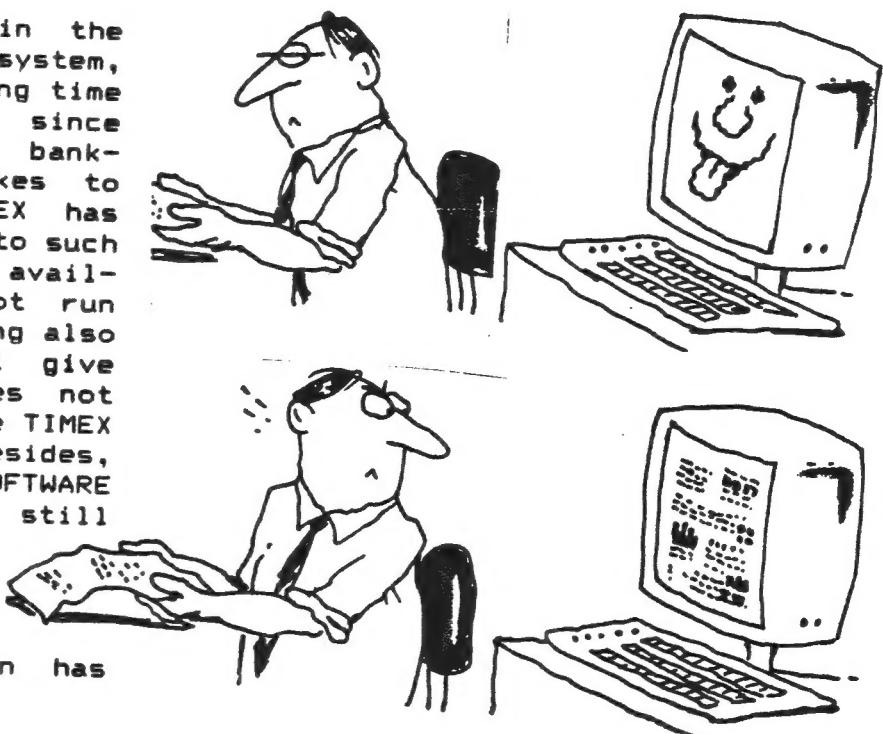
Spectrum verses Timex model! Should we even argue about this? I think not, since both are available to us. The 2068 would have been far superior to the Spectrum if Timex would not have thrown in the towel, or would have done so after the system was complete.

NOTES	ADDRESS	NAME	CONTENTS
X1	23734	FLAGS3	More flags
X2	23735	VECTOR	Address used to extend BASIC interpreter
X10	23737	SBRT	ROM paging subroutine. (10 bytes)
2	23747	BAUD	Two bytes determining the baud rate (RS232)
1	23749	NTSTAT	Network station number. (Your own)
1	23750	IOBORD	Border color used during I/O. (Poke any color)
N2	23751	SER_FL	2 byte workspace used by RS232.
N2	23753	SECTOR	2 byte workspace used by Microdrive.
N2	23755	CHADD_	Temporary store for CH ADD. (23645)
1	23757	NTRESP	Store for network response code.
1	23758	NTDEST	Destination station #. (start network buffer)
1	23759	NTSRCE	Source station number.
X2	23760	NTNUMB	Network block number. (0-65535)
N1	23762	NTTYPE	Header type code. (Network)
N1	23763	NTLEN	Packet data block length. (0-255)
N1	23764	NTDCS	Packet data block checksum. (# data-bytes send)
N1	23765	NTHCS	Header block checksum.
N2	23766	D_STR1	2 byte drive number. (strt 8 byte file)
N1	23768	S_STR1	Stream number. (0-15)
N1	23769	L_STR1	Device type. ("m", "n", "t", "b")
N2	23770	N_STR1	Length of filename.
N2	23772		Start of filename.
N8	23774	D_STR2	File specifier, (8 bytes) used by MOVE & LOAD.
N1	23782	HD_00	Start of workspace. (SAVE, LOAD, VERIFY, MERGE)
N2	23783	HD_0B	Length of data, 0-65535. (Microdrive)
N2	23785	HD_0D	Start of data, 0-65353.
N2	23787	HD_0F	Program length, 0-65353.
N2	23789	HD_11	Line number.
1	23791	COPIES	Number of copies made by SAVE.
	23792		Start of Microdrive MAPs or CHANS.

Since TIMEX has trown in the towel without finishing the system, my feeling has been for a long time to favor the SINCLAIR mode, since there is very little use for bank-switching, except if one likes to use the dock bank, and TIMEX has managed to re write the ROM to such an extend that many programs available to us from Britain do not run in the TIMEX mode. Considering also that the Sinclair mode will give you more RAM-SPACE and does not have some of the problems the TIMEX mode has (DELETE KEY), and besides, for the SINCLAIR there is SOFTWARE available, and the system is still somewhat suported.

till next month, #3  
Rudy

The source of some information has been the Interface i manual.



## Bill on MSCRIPT

I wanted to try backing the form in my printer but the Gemini 10X doesn't have the capability. If there is anyone out there with that capability give it a try and let me know the results. I might just have to get that printer.

### A couple of hints for MSCRIPT

If you write a newsletter or any other printing using columns the margin capability of MSCRIPT will help. In my case this newsletter is printed on an 80 column printer. Allowing 35 characters per column this uses 70 characters. With only 10 positions left I allow a left margin of 3. Now if you divide the paper in half (40 columns) plus the 3 for the margin set the left margin at 43 for the right column.

This way the right column will print on the right side of the paper.

If you use the BLOCK print option you can print only one column of the page at a time. Then when the left side column is printed back the paper to the TOP OF FORM and print the right side. If you want to block print you have to turn on the BLOCK option in the main menu (X option), then set the BLOCK MARKER at the start and end of the lines to print. Don't forget to include the paper controls, or any MSCRIPT controls you want to control the printer.

5+5+5+5+5+5+5+5+5+5+5+5+5+5+5+5

You've heard of PROFILE 2068.  
You may have even heard of PROFILE +3!  
But we are willing to bet that you have never heard of:

### PROFILE +5!

That's right! PROFILE +5! A great new addition to the line of PROFILE updates. We have used all of the various versions of this program and can honestly say that this is the ULTIMATE PROFILE!

+5 contains all of the features of PROFILE 2068 and +3 as well as all of the new features of TOM WOODS' PROFILE CARTRIDGE! Including the 'NOT' and 'OR' search routines. It also lets you print in 80 columns! It still has the 'NAME REVERSAL' print feature and the 'EDIT A PHRASE' menu option. You can now 'MERGE' files, 'DATE' files and make use of the great machine code sort routine!

All of this is available in several ways, if you already own one or more versions of PROFILE, you will be able to save some money on this version. the complete program on cassette available for:

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5+5+5+5+5+5+5+5+5+5+5+5+5+5+5+5

The following examples show how to apply the margins (left & right)

>lm=3 this sets the left margin at 3 print positions.  
Now enter the first page.  
>lm=43 this sets the left margin at 43 print positions.  
This will set up the second or right column.  
If your printer will back the form (not columns) put those instructions inbetween the two pages and just print your page. If, like mine, your printer carriage will go only one way, then you can print two ways regular or BLOCK. Regular means just print your pages normally. Block means you turn on the BLOCK function of MSCRIPT, X on the main menu, and place a block marker, symbol shift caps shift B, at the right column, and at the end of the left column.



The first left column must be handled differently. This column must be BLOCK marked by itself. At the end of each printing roll the paper back so the right column will start printing on the same line as the left column. The only problem with this is that each pair of columns must be BLOCK marked one set at a time. Also note the >lm= must start in column 1 and be included within the block markers. Also a mark on the tracker feed holes to align the paper so the TOP OF FORM starting position can be easily found.

Tune in next month.

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## SUNSHINE COMPUTERFEST

Well I am starting this article prior to the fest. Neal and I are getting ready for the fest by saving money for the great buys. I will finish the article after the fest. Will be taking the video camera again so hope to have videos of the seminars again with the same price \$10 for tape, shipping, and first seminar. \$2 for each seminar after that. Up to 6 seminars per tape or \$20 for each full (6 seminars) tape.

Well the fest is over and fun was had by all. I am writting this on Sunday am. The show was a success but not the user or dealer representation of last years (Indianapolis) fest. There were some ZX80's for sale (\$50) and I bought one. The reason I spent that much as they only had manuals and I wanted one. The seminars were good but again not as many as last year. The important message coming from the fest is the attempt to start a INTERNATIONAL or at least NORTH AMERICAN USER GROUP. We hope it succeeds and are behind it 100%. Further info next news letter.

## FOR SALEs

If you have anything for sale, you can advertise it for free in this newsletter (provided you're a SMUG member). Our newsletter reaches an ever-growing number of TS User Groups throughout the country, increasing your chances of a sale.

If you didn't attend the SUNSHINE COMPUTERFEST you didn't get the Smugware Conversions flyer containing the programs and books we have for sale. If you would like one write to us at: SMUGWARE CONVERSIONS, P.O. Box 101, Butler WI 53007

Ed Haase has a game package for sale. 24 game programs for \$40. They are machine code programs entered from magazines and modified to use the joystick and run on the TS2068. Most are loadable on the AERCO disk system. Here are the titles. ManicClimb, Fire Kracker, Catchman, TS Centi, Tripods, BubBlaster, Mega Drive, Rocks, Cherry Jerry, Terrapin, Cross Fire, Birdy, Caverns, Evaders, Carrots from Space, Busy Bee, The Duel, Showdown, Vampire, Zebbedy, Bomb Alley, Asteroids, Sawmill, and Tomato. They come on 3 cassettes guaranteed to load. (Ed. note I played most of these games and they are really a bargain.)

## FROM THE PRES

We hope this will be a good year for you and the Sinclair community. With the Computerfest early this year, March 4th thru the 6th, the summer ham and computer fests should be easy to attend. See you at the Sunstate T/S Computerfest.

Ham and Computer fests comming up Sunday April 10, the Dane County Expo Center, Madison Bam - ?. Sat. May 7, Circle B Recreation Center, Cedarburg Hy 60 & County I Saturday May 14, Manitowoc county Expo, Manitowoc Bam - ?

## Dave Flemming

Last month I had listed companies to whom I had sent catalog requests to. I showed which ones had replied and which ones had not. Of the companies still not responding they are as follows: Weymil - Beaver Computer Products - T/S Connection - Thomas B. Woods.

Companies responding as of the last newsletter are: AFR Software - Sharps - Silicon Mountain Computers.

The last company, Silicon Mountain is one catalog that has peaked my interest. I realize that they were a bit slow in sending the catalog, but I think it was worth the wait. As you may know, SMC supports only the ZX81 line of computers. Well, they have added some new products that may interest some of you. They are: a Timex ROM for the PC8300. It makes the PC8300 over 90% compatible with Timex software. The only bad things about this are: it can't run high-res software; some graphics and punctuation characters remain different; will not work with the color pack; and the PC8300 MUSIC and SOUND commands are not available. However you do get those extra features: beeping keys; blinking cursor; hard or soft reset; changeable speeds in slow mode (almost three times as fast as normal!). The price for this upgrade is only \$14.95. SMC says in their catalog to stay tuned for more on the PC8300. In the near future they may add these things to their catalog: a comprehensive music program, games, a true high-res color add-on, bank switching, and other features to exceed the Spectrum/T82068! But, this will only come about if there is enough interest in these products. Which leads to the next subject about SMC.

SMC is ready to release some new products, but only if enough people mail in and tell them that they are interested. First there is the SMC CPI-1 printer interface. This interface is a duplicate of the Tasman B, but is priced at only \$24.95! Next is HR-Copy, a program that allows you to print out high-res screens generated from Scram Hi-Res Extended Basic, Sinc-Artist, or RLE files. Also available is the Universal Printer Driver that allows COPY, LLIST, and three ways of LPRINTing to your Centronics-parallel printer. Prices for these programs are: HR-Copy \$9.95, UPD \$14.95. Last but not least is the Terminal. This consists of the following products: Westridge's Revenge. Yes, a Westridge modem, cased or uncased, and modified so that no additional power-supply ins needed. Usable with the ZX81 or T82068. Prices M2050-C \$34.95 and M2050-U \$29.95.

The IF/Firmware Card. This low footprint card replaces the interface card from the original Westridge modems. It has a 26 pin header that connects to the modem. The nice thing about this interface card is that it doubles as an 8K Eprom reader for the ZX81/T81000. Price is only \$24.95.

The final item is the ZX-TERM 80 Eprom. This great little device plugs into the IF/Firmware Card and gives you instant communications on power-up for only \$24.95! SMC is also running a special package. For only \$119.70 you get the M2050-C, IFFC, ZX-TERM 80 EPROM, plus the CPI-1 with cable, and HR-Copy. What a deal! But, there is a catch here. These products will not become available unless enough people mail in to SMC and tell them that they are interested. I have done so! If you are thinking of buying send them a letter at: Silicon Mountain Computers C-12 Mountain Station Group Box Nelson BC V1L 5P1 Canada

Dave Flemming



I'M

**51% SWEETHEART  
49% BITCH**

**DON'T PUSH IT**